

REMARKS/ARGUMENTS

Applicants would like to thank Examiner Wu for the helpful and courteous interview held November 21, 2007. As discussed, the claims have been amended to make it clear that the claimed mixture is prepared by adding a photopolymerizable monomer liquid crystal exhibiting a nematic phase to a smectic liquid crystal exhibiting no nematic phase. This is described at, e.g., specification 7, middle, and at page 8, top, where it is explained that the amount of monomer liquid crystal added to the smectic liquid crystal is an amount that induces an isotropic-nematic-smectic phase sequence in the mixture. The Examples in the specification use 5% and 30% monomer liquid crystal,<sup>1</sup> which supports new claims 5-7. No new matter has been entered.

Applicants appreciate the consideration of their IDS. For the Examiner's information, Reference AA was not initialed on the 1449. The Examiner may wish to initial this reference to indicate that it has been considered and to avoid a Printer Rush.

The rejection of the claims under 35 U.S.C. 112 is traversed. As discussed during the interview, the claims comply with 35 U.S.C. 112 because the amount of photopolymerizable monomer liquid crystal added to the smectic liquid crystal exhibiting no nematic phase is specified, albeit functionally. Specifically, the amount added is an amount that induces an isotropic-nematic-smectic phase sequence in the mixture. As is well known to Examiner Wu, who has long experience in the field of liquid crystals, determining the phase transition sequence of a liquid crystal mixture is a routine, easily accomplished task requiring nothing more than a polarizing light microscope equipped with a heating stage.

Thus, and because those of ordinary skill in the art are well able to determine when a mixture comprising a photopolymerizable monomer liquid crystal and a smectic liquid crystal having no nematic phase exhibits an isotropic phase/nematic phase/smectic phase transition

---

<sup>1</sup> See specification page 9, line 9 and page 12, line 8.

sequence, the claims as currently drafted do comply with the first paragraph of 35 U.S.C. 112, which requires only that the specification contain a written description of the invention, and of the manner and process of making and using it, in such terms as to enable one of ordinary skill to make and use the same. Because determining the phase transition sequence of a liquid crystalline mixture is a standard, regular practice in the art requiring no undue experimentation, the outstanding rejection should be withdrawn and this case passed to Issue.

Should Examiner Wu need anything further to allow this case he is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



---

Richard L. Treanor  
Attorney of Record  
Registration No. 36,379

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)